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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,477	06/06/2001	Kenneth P. Hinckley	m61.12-0318	7953

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Theodore M. Magee
WESTMAN CHAMPLIN & KELLY
International Center, Suite 1600
900 South Second Avenue
Minneapolis, MN 55402-3319

EXAMINER

MOYER, MICHAEL J

ART UNIT	PAPER NUMBER
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2675

3

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/875,477

Applicant(s)

HINCKLEY ET AL.

Examiner

Michael J. Moyer

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 16-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **As pertaining to claims 2, 16, and 23** the examiner cannot find any support in the specification that corresponds to the orientation of the device is relative to the earth. The examiner requests an explanation or for the applicants to point out or demonstrate within the specification where this limitation is taught. The examiner will interpret "relative to the earth" to mean as a horizontal plane, i.e., the device when flat is parallel to the plane.

Claims 3-9 and 17-30 are rejected as being dependent on a rejected base claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-7, 9, 14, 16-18, 20-21 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lands, US 6,201,554 B1 in view of Thomas, US 6,567,101 B1.

As pertaining to claims 1 and 16, Lands discloses a hand-held data processing device

10. The device has four manual input devices 28, 30, 32 and 34 for controlling certain operations of the device 10. Sensors 36 and 38 produce signals that allow the device to

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generate one or more context values based on the sensors 36 and 38. The context values, which are generated by the sensors 36 and 38, allow the device to be controlled by motion or movement, i.e., tilting (col. 1, line 40-col. 2, line 65; col. 3, lines 30-64; figs. 1-4).

As pertaining to claims 1 and 16, Lands does not disclose specifically the sensors would indicate how the device is situated relative to one or more object or relative to the earth. It would be obvious that Lands device would accomplish this because that is why tilt sensors are used because they operate based on the position of the device relative to an object or point of an object. Just in case the applicants do not interpret or agree with the examiner, **As pertaining to claims 1 and 16**, Thomas discloses another hand-held device that operates almost the same way as Lands but discloses the device is able to indicate, through sensors, how it is situated relative to one or more objects or relative to the earth or the environment (col. 2, lines 17-27; col. 4, lines 39-61; col. 6, lines 46-65).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the device of Thomas with the device of Lands.

The suggestion/motivation for doing so would have been to provide a device that is able to operate certain functions via motion or movement with one hand, making a small device easier to use and operate without having or making the device big and cumbersome with extra buttons.

As pertaining to claims 2 and 23, Lands discloses generating context values by generating a tilt context value that indicates how the device is tilted relative or parallel to the earth (col. 29-46; col. 5, line 13-col. 7, line 39). Claims 2 and 23 are dependent on claims 1 and 16-17 and 20 and are rejected on the same basis and what is stated above.

As pertaining to claims 3 and 20, Lands discloses generating context values by generating a tilt context value that changes the orientation of an image on the display (col. 6,

line 39-col. 7, line 39). Claims 3 and 20 are dependent on claims 1-2 and 16-17, respectively and are rejected on the basis and what is stated above.

As pertaining to claims 6 and 24, Lands discloses generating context values by generating a tilt context value that changes the contrast level on the display (col. 6, line 39-col. 7, line 39). Claims 6 and 24 are dependent on claims 1-2 and 16-17, respectively and are rejected on the same basis and what is stated above.

As pertaining to claims 7 and 18, Thomas discloses scrolling an image on the display based on the tilt value, the rate of scrolling based on the difference between a current tilt value and initial tilt value that was determined when scrolling initiated (col. 4, lines 4-38; col. 5, lines 19-60). Claims 7 and 18 are dependent on claims 1-2 and 16-17, respectively and are rejected on the same basis and what is stated above.

As pertaining to claims 9 and 21, it would be obvious when combined with each other that these two functions would operate separately in which Lands would generate context values by generating a tilt context value that changes the orientation of an image on the display (col. 6, line 39-col. 7, line 39) and that Thomas would scroll an image on the display based on the tilt value, the rate of scrolling based on the difference between a current tilt value and initial tilt value that was determined when scrolling initiated (col. 4, lines 4-38; col. 5, lines 19-60). Claims 9 and 21 are dependent on claims 1-2 and 7, and 16-17 and 20, respectively and are rejected on the same basis and what is stated above.

As pertaining to claim 14, Lands discloses generating an holding text value by pushing one of the activation buttons 28, 30, 32 or 34 and at least one orientation context value that indicates the device is in an orientation consistent with the user wanting to use the device and to control the operation by activating an application based on the holding context value and

orientation context value (col. 1, line 40-col. 2, line 65; col. 3, lines 30-64; figs. 1-4). Claim 14 is dependent on claim 1 and is rejected on the same basis and what is stated above.

As pertaining to claim 17, Lands discloses that sensors 36 and 38 are tilt sensors (col. 1, line 40-col. 2, line 65; col. 3, lines 30-64; figs. 1-4). Claim 17 is dependent on claim 16 and is rejected on the same basis and what is stated above.

3. **Claims 4 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 1 or 2 or 3 or 16 or 17 or 20 above, and further in view of Register, US 5,661,632.

As pertaining to claims 4 and 22, Lands and Thomas disclose what has previously been stated above.

As pertaining to claims 4 and 22, they do not disclose changing the mapping of directional inputs relative to the display.

As pertaining to claims 4 and 22, Register discloses an portable handheld device 10, that is able to change the mapping of directional inputs relative to the display, when the device is in a portrait mode and then is changed to be in a landscape mode (col. 2, line 61-col. 4, line 13).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the handheld device of Register with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide a device that is able to operate in two different viewing modes for viewing an image. Once the user defines what style they prefer, the directional inputs and buttons would be mapped to correlate to that style. Claims 4 and 22 are dependent on claims 1-3 and 16-17 and 22, respectively and are rejected on the same basis and what is stated above.

4. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 1 or 2 or 3 above, and further in view of Martinez et al. (hereinafter "Martinez"), US 6,137,468.

As pertaining to claim 5, Lands and Thomas disclose what has previously been stated above.

As pertaining to claim 5, they do not disclose generating a flat context value when the device is laying flat and a tilt context value that was maintained for longer than a set period of time before the flat context value was generated.

As pertaining to claim 5, Martinez discloses a device that uses tilt sensors for generating context values. The device is also able to distinguish between it laying flat on a surface versus when it is not and then a corresponding tilt value can be maintained longer than a set period of time before the flat value was generated (col. 6, lines 38-65).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the device of Martinez with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide a device that is to distinguish when it is laying flat on a surface versus it not being. So when the device is laying flat it is still able to generate a tilt context values so as to change the orientation of the image if desired. Claim 5 is dependent on claims 1-3 and is rejected on the same basis and what is stated above.

5. **Claims 8 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 1 or 2 or 7 or 16 or 17 or 18 above, and further in view of Bernstein et al. (hereinafter "Bernstein"), US 5,761,071.

As pertaining to claims 8 and 19, Lands and Thomas disclose what has previously been stated above.

As pertaining to claims 8 and 19, they do not disclose removing at least one tool bar from the display while scrolling.

As pertaining to claims 8 and 19, Bernstein discloses removing or hiding at one tool bar from the display while scrolling (col. 4, lines 44-54).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the program of Bernstein with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide for more of an image to be displayed while scrolling thus allowing the user to see or view more of the image. Claims 8 and 19 are dependent on claims 1-2 and 7, and 16-18, respectively and are rejected on the same basis and what is stated above.

6. **Claims 10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 1 above, in view of Park, US 5,705,997 and further in view of Nookala et al. (hereinafter "Nookala"), US 5,860,016.

As pertaining to claim 10, Lands and Thomas disclose what has previously been stated above.

As pertaining to claim 10, they do not disclose holding context value that indicates the user is holding the device and context value for placing the device in a full power mode based on the holding value.

As pertaining to claim 10, Park discloses a self-illumination circuit for a hand held remote control device. A contact sensing section for sensing contact of said remote control device to generate a contact sensing signal, which can be construed as a holding signal (col. 2, lines 6-13).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the handheld of Park with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide for a device that is able to sense when a user is holding it so that it can be activated compared to if the device was laid flat on a surface and not operating.

As pertaining to claim 10, Nookala discloses a system that uses three different modes for power. A normal mode for a full power operation, an idle mode for low power mode and a standby mode for when the device that has been inactive for a period of time it shuts off. So when the device is inactive or off or in idle mode, a user will pickup the device and it will go into a normal mode (col. 1, lines 48-col. 2, lines 6; col. 5, lines 48-64).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the handheld of Nookala with that of Lands, Thomas and Park.

The suggestion/motivation for doing so would have been to provide a better or more efficient handheld device. So if the device is in standby or idle mode once it is picked up the holding or contact section will produce a signal indicating that it has been picked up or is being held by a user, then the other context values will be issued in order for the device to be operated in the proper way and then the device will go into normal mode. Claim 11 is dependent on claim 1 and is rejected on the same basis and what is stated above.

As pertaining to claim 11, it would be obvious that if a user is holding and operating the device that it would not go into an idle mode. Claim 11 is dependent on claim 1 and is rejected on the same basis and what is stated above.

7. **Claim 12-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 1 above, and further in view of Lignoul, US 6,374,145 B1 and Nookala.

As pertaining to claim 12, Lands and Thomas disclose what has previously been stated above.

As pertaining to claim 12, they do not disclose a proximity sensor for generating proximity context values that indicate the proximity between the device and an object and also, and preventing the device from entering an idle mode based on the proximity values.

As pertaining to claim 12, Lignoul discloses a proximity sensor 105 for detecting when a user is in close proximity to the computer device (col. 4, lines 48-51; fig. 1).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the proximity sensor of Lignoul with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide for device that is able to detect the presence of user. This is another form of operation for the device to be put into a working mode.

As pertaining to claim 12, Nookala discloses a system that uses three different modes for power. A normal mode for a full power operation, an idle mode for low power mode and a standby mode for when the device that has been inactive for a period of time it shuts off. So when the device is inactive or off or in idle mode, a user will pickup the device and it will go into a normal mode (col. 1, lines 48-col. 2, lines 6; col. 5, lines 48-64).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the handheld of Nookala with that of Lands, Thomas and Lignoul.

The suggestion/motivation for doing so would have been to provide for device that has another option for preventing it from not going into an idle mode. This also may allow a user not to actually have to hold the device from not entering the idle mode. Claim 12 is dependent on claim 1 and is rejected on the same basis and what is stated above.

As pertaining to claim 13, it would be obvious if the all the proximity values were the same it would enter the idle mode. Since the job of the proximity sensor is detecting the presence of a user, if nothing is detected, i.e., the beams are not reflected, then the device

would enter an idle mode. Claim 13 is dependent on claims 1 and 12 and is rejected on the same basis and what is stated above.

8. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 14 above, and further in view of Flack et al. (hereinafter "Flack"), US 6,288,704 B1.

As pertaining to claim 15, Lands and Thomas disclose what has previously been stated above.

As pertaining to claim 15, they do not disclose an application to record sound.

As pertaining to claim 15, Flack discloses a device that can record messages (col. 4, lines 21-35).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the recording portion of Flack with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide for a device that is able to record messages or sound bytes in order to help the user. The messages could be as reminders, events etc., and sound bytes could be anything from a song, a certain sound for completion of tasks etc. Claim 15 is dependent on claims 1 and 14 and is rejected on the same basis and what is stated above.

9. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 16 or 17 above, and further in view of Feinstein, US 6,466,198 B1.

As pertaining to claim 25, Lands and Thomas disclose what has previously been stated above.

As pertaining to claim 25, they do not disclose a touch sensor.

As pertaining to claim 25, Feinstein discloses handheld device that uses tilt sensors and touch sensors (col. 6, lines 40-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the sensors of Feinstein with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide for a device that uses touch sensor instead of push or mechanical sensors. Claim 25 is dependent on claims 16-17 and is rejected on the same basis and what is stated above.

As pertaining to claim 28, Lands discloses generates control means for using the tilt and touch sensor to activate an application (col. 1, line 40-col. 2, line 65; col. 3, lines 30-64; figs. 1-4). Claim 28 is dependent on claims 16-17 and 25 and is rejected on the same basis and what is stated above.

10. **Claims 26-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lands, Thomas and Feinstein as applied to claim 16 or 17 or 25 above, and further in view of Nookala.

As pertaining to claim 26, Lands, Thomas and Feinstein disclose what has previously been stated above.

As pertaining to claim 26, they do not disclose the device is put into a full power mode.

As pertaining to claim 26, Nookala discloses a system that uses three different modes for power. A normal mode for a full power operation, an idle mode for low power mode and a standby mode for when the device that has been inactive for a period of time it shuts off. So when the device is inactive or off or in idle mode, a user will pickup the device and it will go into a normal mode (col. 1, lines 48-col. 2, lines 6; col. 5, lines 48-64).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the handheld of Nookala with that of Lands, Thomas and Feinstein.

The suggestion/motivation for doing so would have been to provide a better or more efficient handheld device. So if the device is in standby or idle mode once it is picked up the holding or contact section will produce a signal indicating that it has been picked up or is being

held by a user, then the other context values will be issued in order for the device to be operated in the proper way and then the device will go into normal mode. Claim 26 is dependent on claims 16-17 and 25 and is rejected on the same basis and what is stated above.

As pertaining to claim 27, it would be obvious that the device could be put into an idle by using the touch sensors and tilt sensors. So if the device has not been touched the tilt and the touch sensors would produce any signals indicating a user has touched or picked up the device. Therefore, after a period of time it would go into an idle mode. Claim 27 is dependent on claims 16-17 and 25-26 and is rejected on the same basis and what is stated above.

11. **Claim 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lands and Thomas as applied to claim 16 or 17 above, and further in view of Lignoul.

As pertaining to claim 29, Lands and Thomas disclose what has previously been stated above.

As pertaining to claim 29, they do not disclose a proximity sensor for generating proximity context values that indicate the proximity between the device and an object and also, and preventing the device from entering an idle mode based on the proximity values.

As pertaining to claim 29, Lignoul discloses a proximity sensor 105 for detecting when a user is in close proximity to the computer device (col. 4, lines 48-51; fig. 1).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the proximity sensor of Lignoul with that of Lands and Thomas.

The suggestion/motivation for doing so would have been to provide for device that is able to detect the presence of user. This is another form of operation for the device to be put into a working mode. Claim 29 is dependent on claims 16-17 and is rejected on the same basis and what is stated above.

12. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lands, Thomas and Lignoul as applied to claim 16 or 17 or 29 above, and further in view of Nookala.

As pertaining to claim 30, Lands, Thomas and Lignoul disclose what has previously been stated above.

As pertaining to claim 30, they do not disclose different power modes.

As pertaining to claim 30, Nookala discloses a system that uses three different modes for power. A normal mode for a full power operation, an idle mode for low power mode and a standby mode for when the device that has been inactive for a period of time it shuts off. So when the device is inactive or off or in idle mode, a user will pickup the device and it will go into a normal mode (col. 1, lines 48-col. 2, lines 6; col. 5, lines 48-64).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the handheld of Nookala with that of Lands, Thomas and Lignoul.

The suggestion/motivation for doing so would have been to provide for device to save power by going into an idle mode. It would be obvious if the all the proximity values were the same it would enter the idle mode. Since the job of the proximity sensor is detecting the presence of a user, if nothing is detected, i.e., the beams are not reflected, then the device would enter an idle mode. Claim 30 is dependent on claims 16-17 and 29 and is rejected on the same basis and what is stated above.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Tognazzini et al., US 6,624,824 B1. Tognazzini teaches a tilt scrolling on the sunpad.

b) Bartlett, US 6,573,883 B1. Bartlett teaches a method and apparatus for controlling a computing device with gestures.

c) Rekimoto, US 6,567,068 B2. Rekimoto teaches an information processing device and method.

d) Motosyuku et al., US 5,602,566. Motosyuku teaches a small-sized information processor capable of scrolling screen in accordance with tilt, and scrolling method therefor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Michael J. Moyer** whose telephone number is **(703) 305-2099**. The examiner can normally be reached Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Steven Saras**, can be reached at **(703) 305-9720**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

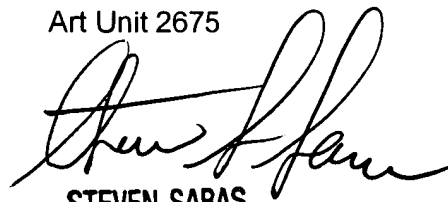
or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

MJM
September 27, 2003

Michael J. Moyer
Examiner
Art Unit 2675



STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600